

CHAPTER 1

PROCESS OF INJURY DATA ACQUISITION AND REPORTING

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Section I. The Work Group

1-1. Introduction

Objectives. The DoD Injury Surveillance and Prevention Work Group convened for the first time on 1 December 1992. Chaired by Colonel Bruce H. Jones, work group members included representatives from the Office of the Assistant Secretary of Defense and all four services: Army, Navy, Marine Corps, and Air Force. At this initial meeting, the work group reviewed its injury prevention charter and discussed its mission, which included the following:

- Identify existing casualty, safety, medical, and personnel databases across all services.
- Collect and summarize data from these databases.
- Assess the value of these databases to injury surveillance.
- Document the magnitude of the injury problem—from deaths to outpatient visits—for all services.
- Present these data in a format that would demonstrate each database's utility as an injury and prevention surveillance tool.
- Make recommendations for future surveillance and prevention of injuries.

The *Atlas of Injuries in the U.S. Armed Forces* is the result of the work group's efforts to satisfy these objectives.

Membership. At any one time, the work group consisted of 8 to 12 active members. **Table 1-1** lists the participating members over time. Members were selected to represent the safety and medical communities of all the military departments.

Table 1-1. DoD Injury Surveillance and Prevention Work Group Members

Members (in alphabetical order)	Agency/Affiliation at Time of Work Group Service
LTC Paul J. Amoroso, secretary	U.S. Army Research Institute of Environmental Medicine
Anita L. Dudley	Army Safety Office, Office of the Chief of Staff
COL Eric Evenson	Office of The Army Surgeon General
COL John W. Gardner	Uniformed Services University of Health Sciences
CDR James Helmkamp	National Institute for Occupational Safety and Health
LCDR Gregory Hempen	Naval Safety Center
COL Bruce H. Jones, chair	U.S. Army Center for Health Promotion and Preventive Medicine
Mr. Albert Lillibridge	Safety Office, Headquarters, U.S. Marine Corps
Mr. Robert Parli	Safety Office, Headquarters, U.S. Air Force
LtCol Chip Patterson	Office of the Assistant Secretary of Defense for Health Affairs
LtCol John F. Seibert	Office of the Deputy Under Secretary of Defense (Environmental Security), Safety & Occupational Health Policy
CAPT Ken A. St.Andre	Office of the Assistant Secretary of Defense for Health Affairs
COL H.E. Wolfe	Office of the Assistant Secretary of the Army for Installations, Logistics, and Environment
LtCol Hank Woodcock	Office of The Surgeon General, Headquarters, U.S. Air Force
Mr. William H. Wortley	Army Safety Office, Office of the Chief of Staff

1-2. Meetings

The work group met nine times between December 1992 and September 1995 to acquire information and data, and on two occasions in September 1996 and March 1997 to prepare their report. **Table 1-2** displays the main agenda items of the 11 work group meetings that took place over this 6-year period.

Table 1-2. DoD Injury Surveillance and Prevention Work Group Meetings—Key Agenda Items

Meeting	Date	Agenda Items
1	1 Dec 92	<ul style="list-style-type: none"> • Work group formation and mission. • Key DoD Health 2000 target injury objectives as context for work group activities. • Objectives and priorities for information acquisitions on DoD military and civilian populations, including frequency and rates of death, hospitalization, disability, and restricted duty. • Sources of information and a strategy for data acquisition.
2	14 Apr 93	<ul style="list-style-type: none"> • National injury trends based on Centers for Disease Control and Prevention data and a comparison with DoD trends. • Army accident and injury rates. • Priorities for DoD Promoting Health 2000 and National Healthy People 2000 objectives as background for work group activities.
3	30 Jun 93	<ul style="list-style-type: none"> • Army, Navy, and Air Force briefings on service safety center/agency missions and databases.
4	8 Dec 93	<ul style="list-style-type: none"> • Army, Navy, and Air Force briefings on service hospitalization databases. • Special Navy report on frequency, costs, work site safety ratings, and injuries among civilian employees.

Table 1-2.—Continued

Meeting	Date	Agenda Items
5	13 Jul 94	<ul style="list-style-type: none"> • Defense Manpower Data Center personnel/demographic databases. • Army Physical Disability Agency. • Navy and Marine Corps Physical Evaluation Board. • Navy Medical Information Management Center. • Air Force Physical Disability Division.
6	16 Dec 94	<ul style="list-style-type: none"> • Format and contents of the atlas. • Data requirements for the atlas sections. • Atlas time line.
7	15 May 95	<ul style="list-style-type: none"> • Other injury prevention and surveillance activities in DoD. • Veterans Administration data. • Operation Desert Storm data.
8	8 Aug 95	<ul style="list-style-type: none"> • Service Casualty Office databases. • Army Medical Evaluation Board Surveillance Project. • Defense Veterans Head Injury Program.
9	6 Sep 95	<ul style="list-style-type: none"> • Navy and Marine Corps outpatient and deployment surveillance experiences and data. • Injuries among Marine Corps recruits. • Navy Safety Center overview and mishap trends. • Marine Corps Safety Office data.
10	23 Sep 96	<ul style="list-style-type: none"> • Draft report, <i>Atlas of Injuries in the U.S. Armed Forces</i>. • Collection of missing data.
11	26 Mar 97	<ul style="list-style-type: none"> • Atlas conclusions and recommendations.

1-3. Data Acquisition

The Atlas of Injuries in the U.S. Armed Forces is the product of data collected from three sources:

- Presentations to the work group members (Table 1-3).
- Responses to the work group questionnaire (Table 1-4).
- Responses to the work group's specific written requests (Table 1-5).

Presentations to the Work Group Members. To acquire injury data for the atlas, various agency representatives were invited to brief the work group members during their meetings. **Table 1-3** displays the responding agencies by service and presentation topic.

Table 1-3. Presentations to the DoD Injury Surveillance and Prevention Work Group

Service	Agency Presentations				
	Deaths	Accidents/Mishaps	Disabilities	Hospitalizations	Personnel and Demographics
DoD	• DIOR Report on Worldwide Casualties	—	—	• Office of the Assistant Secretary of Defense	• Defense Manpower Data Center
Army	—	• Army Safety Center	• Army Physical Disability Agency • Patient Administration Systems and Biostatistics Activity	• Patient Administration Systems and Biostatistics Activity	—
Navy	• Naval Medical Information Management Center	• Naval Safety Center	• Navy and Marine Corps Physical Evaluation Board • Naval Medical Information Management Center	• Naval Medical Information Management Center • Naval Health Research Center	—
Marine Corps	• Marine Corps Casualty Office • Naval Medical Information Management Center	• Safety Office, Headquarters, Marine Corps	• Navy and Marine Corps Physical Evaluation Board	• Naval Medical Information Management Center	—
Air Force	—	• Air Force Safety Agency/Center	• Air Force Physical Disability Division	• Air Force Medical Support Agency	—

Responses to the Work Group Questionnaire. In June 1995, the work group mailed a questionnaire to key agencies to collect information on the nature and contents of databases with the potential for routine or episodic injury surveillance. A copy of the questionnaire is provided in the appendix at the end of this chapter. Specifically, the questionnaire solicited information on:

- The mission of the organization maintaining the database and the major purposes for the database's current utilization.
- The contents and codes of the database.
- Any routine reports generated from the database that might be useful to injury surveillance and prevention efforts.

In addition to completing the questionnaire, each agency was asked to provide the following data:

- Population (Army, Navy, Marine Corps, Air Force, Reserve, National Guard).
- Demographics (gender, age, race, etc.).
- Types of injury (diagnosis/disability categories, etc.).
- External causes of injury or categories of mishap.
- Medical and other associated costs of injuries, disease, or accidents/mishaps.

Table 1-4 displays the agencies that responded to the questionnaire.

Table 1-4. Agencies Responding to the DoD Injury Surveillance and Prevention Work Group Questionnaire

Service	Atlas Chapters			
	Chapter 2: Deaths Due to Injuries: Casualty Office Data	Chapter 3: Fatal and Nonfatal Accidents/Mishaps: Safety Center Data	Chapter 4: Disabilities Related to the Musculoskeletal System: Physical Evaluation Board Data	Chapter 5: Hospitalizations Due to Injury: Inpatient Medical Records Data
DoD	—	—	—	• Patient Administration Systems and Biostatistics Activity
Army	• Army Casualty Office	• Army Safety Center	• Army Physical Disability Agency	—
Navy	• Bureau of Naval Personnel/ Navy Casualty Office	• Naval Safety Center	• Physical Evaluation Board, Naval Council of Personnel Boards	• Naval Health Research Center • Naval Medical Information Management Center
Marine Corps	• Headquarters Marine Corps Casualty Section, Personnel Affairs Branch	• Safety Office, Headquarters, Marine Corps	*	†
Air Force	• Headquarters Air Force Personnel Center	• Air Force Safety Agency/ Center	• Air Force Personnel Center, Disability Division	• Medical Information Systems Division, Directorate of Health Care Support, Office of the Surgeon General, U.S. Air Force.

* Navy and Marine Corps have a combined disability board.

† Navy Medical Departments provide health care and maintain hospitalization records on Marine Corps personnel.

Responses to the Work Group’s Written Requests. Data that were not obtained by presentations to the work group, or from the work group questionnaire, were specifically requested from the appropriate agency. **Table 1-5** provides a complete list of all of the data sources presented in the atlas.

Table 1-5. Atlas Data Sources by Service

	Army	Navy	Marine Corps	Air Force
Deaths	<ul style="list-style-type: none"> • DoD Worldwide U.S. Active Duty Military Personnel Casualties, Oct 1979-Dec 1995. • Armed Forces Epidemiological Board, <i>Injuries in the Military: A Hidden Epidemic</i>, 1996. • Army Casualty Information Processing Center. 	<ul style="list-style-type: none"> • DoD Worldwide U.S. Active Duty Military Personnel Casualties, Oct 1979-Dec 1995. 	<ul style="list-style-type: none"> • DoD Worldwide U.S. Active Duty Military Personnel Casualties, Oct 1979-Dec 1995. • Armed Forces Epidemiological Board, <i>Injuries in the Military: A Hidden Epidemic</i>, 1996. 	<ul style="list-style-type: none"> • DoD Worldwide U.S. Active Duty Military Personnel Casualties, Oct 1979-Dec 1995. • Armed Forces Epidemiological Board, <i>Injuries in the Military: A Hidden Epidemic</i>, 1996.
Accidents/ Mishaps	<ul style="list-style-type: none"> • Army Safety Center, Fort Rucker, AL, 1995 and 1997, and personal communication, 1997. 	<ul style="list-style-type: none"> • Naval Safety Center, 1998. 	<ul style="list-style-type: none"> • Naval Safety Center, Norfolk, VA, 1998. • Safety Office, Headquarters, Marine Corps, Sep 1995. 	<ul style="list-style-type: none"> • Headquarters, Air Force Safety Agency, Albuquerque, NM, 1995. • U.S. Air Force Mishap Bulletin, Albuquerque, NM, 1980-1991.
Disabilities	<ul style="list-style-type: none"> • Army Physical Disability Agency, WRAMC, Forest Glen Annex, Washington, DC, February 1996. • Page, Gregory L., 1995. 	<ul style="list-style-type: none"> • Department of the Navy, Naval Council of Personnel Boards, Arlington, VA, 1995. • Naval Medical Information Management System, Medical Evaluation Board, Bethesda, MD, 1994. 	—	<ul style="list-style-type: none"> • Department of the Air Force, HQ Air Force Personnel Center, Randolph AFB, TX, 1995.

Table 1-5.—Continued

	Army	Navy	Marine Corps	Air Force
Hospitalizations	<ul style="list-style-type: none"> • Individual Patient Data System, Patient Administration Systems and Biostatistics Activity, Fort Sam Houston, TX, and the Army Medical Surveillance Activity, U.S. Army Center for Health Promotion and Preventive Medicine, Aberdeen Proving Ground, MD, 1994 and 1996. • Armed Forces Epidemiological Board, <i>Injuries in the Military: A Hidden Epidemic</i>, 1996. 	<ul style="list-style-type: none"> • Naval Medical Information Management Center, Bethesda, MD, 1996. • Naval Health Research Center, Navy Hospital Records Database, San Diego, CA, 1993. 	<ul style="list-style-type: none"> • Naval Medical Information Management Center, Bethesda, MD, 1996. 	<ul style="list-style-type: none"> • Medical Information Systems Division, Directorate of Health Care Support, Office of The Surgeon General, U.S. Air Force, 1993.
Epidemiology and Research	<ul style="list-style-type: none"> • Amoroso, P.J., et al., 1997. • Amoroso, P.J., et al., 1998. • Bell, N.S., et al., 1996. • Bell, N.S., et al., unpublished. • Bensen, C.K., & R.N. Kish, 1983. • Bricknel, M.C.M., et al., in press. • Canham, M.L., et al, 1996. • Cowan D., et al., 1988. • Cowan, D.N., et al., 1993. • Cowan, D.N. et al., 1996. • Jones, B.H., et al., 1988. • Jones, B.H., et al., 1992. • Jones, B.H., et al., 1993. • Jones, B.H., et al., 1993. • Jones, B.H., & J.J. Knapik, 1994. • Jones, B.H., 1997. • Jones, B.H., & J.J. Knapik, 1999. 	<ul style="list-style-type: none"> • Naval Health Research Center, personal communication, 1996. 	<ul style="list-style-type: none"> • Naval Health Research Center, personal communication, 1996. • Gardner L.I., et al., 1988. • Kimsey, C.D., Jr., 1993. 	<ul style="list-style-type: none"> • Snedecor, M.R., et al., 1996.

Table 1-5.—Continued

	Army	Navy	Marine Corps	Air Force
Epidemiology and Research—Continued	<ul style="list-style-type: none"> • Kowal, D.M., 1980. • Tomlinson, J.P., et al., 1987. • Total Army Injury and Health Outcomes Database, U.S. Army Research Institute of Environmental Medicine, Natick, MA, 1997. • Westphal, K.A., et al., 1995. 			
	<ul style="list-style-type: none"> • Department of Veterans Affairs, National Center for Veteran Analysis and Statistics, Veterans Administration Annual Report, Washington, DC, 1995. 			
Traumatic Brain Injuries	<ul style="list-style-type: none"> • Max, W., et al., 1991. • Ommaya, Alexander K., Paper presented to DoD Injury Surveillance and Prevention Work Group, August 1995. • Ommaya, Alexander K., et al. 1996. 			
Population Data	<ul style="list-style-type: none"> • National Mortality Profile of Active Duty Personnel in the U.S. Armed Forces, 1980-1993. Department of Health and Human Services (National Institute for Occupational Safety and Health) Publication No. 96-103. • DoD Worldwide U.S. Active Duty Military Personnel Casualties, Oct 1979-Dec 1995. 			

Section II. The Work Group Report

1-4. Organization of the Report

Introductory information is presented in the beginning of the atlas in four sections:

- Foreword.
- Preface.
- Introduction.
- Chapter 1: Methodology.

Chapters 2 through 6 appear in order of severity of injury from most to least:

- Chapter 2: Deaths.
- Chapter 3: Accidents/mishaps.
- Chapter 4: Disabilities.
- Chapter 5: Hospitalizations.
- Chapter 6: Outpatient data.

Chapters 7 and 8 present data from two model databases:

- Chapter 7: Defense and Veterans Head Injury Program (DVHIP).
- Chapter 8: Total Army Injury and Health Outcomes Database (TAIHOD).

Conclusions and recommendations drawn from the data presented in chapters 2 through 8 are presented in Chapter 9.

Four appendices—Classification Codes, Glossary of Acronyms, Glossary of Terms, and References—complete the atlas.

1-5. Chapter Format

The atlas is presented in a landscape format. When figures are displayed, the explanatory text appears on even pages with the corresponding figures on odd pages. This design allows for the reading of the text while viewing the figures.

Description of the Databases. Within chapters 2 through 8, the mission, purpose, authority, and database contents* are provided for each database. For chapters 2 through 5 and 7, a table displays how the contents of each database compare to the Minimum Basic Data Set (MBDS) Requirements from the International Collaborative Effort on Injury Statistics (ICE).

Minimum Basic Data Set Requirements. The atlas:

- Includes a comparison of the MBDS recommended by ICE and the contents of each military database described in chapters 2 through 5 and 7.
- Focuses on unintentional injuries only and does not include intentional injury rates, with the exception of data on suicides and homicides in Chapter 2, and suicides in Chapter 8.

Table 1-6 displays the MBDS requirements for unintentional and intentional injuries.

* Database contents are not provided in Chapter 6.

Table 1-6. Minimum Basic Data Set Required for Unintentional and Intentional Injuries

Unintentional Injuries*	Intentional Injuries†
Intent	Intent
Age of victim	Age of victim and perpetrator
Sex of victim	Sex of victim and perpetrator
Race of victim	Race of victim and perpetrator
Residence of victim	Time and date of injury event
Date of injury event	Type of injury/body location
Place of occurrence (home, work, school, etc.)	Place of occurrence (home, work, school, etc.)
Address of place of occurrence	Address of place of occurrence
Activity when injury occurred (work, education, sports, etc.)	Circumstances or motive surrounding injury event
Mechanism of accident/event	Drugs or alcohol involved (yes/no)
Type of injury/body location	Weapon(s) involved
Outcome measurements appropriate for data source (days in hospital, cost of care, degree of disability, etc.)	Relationship of victim to perpetrator
	Outcome measurements appropriate for data source (days in hospital, degree of disability, etc.)
	Source of data

* Lund J., Y. Holder, and R.J. Smith. Minimum Basic Data Set, Unintentional Injuries. *Proceedings of the International Collaborative Effort on Injury Statistics*, 1:34-1 to 34-4, 1994.

† Powell, K. and J. Kraus. Minimum Basic Data Set, Intentional Injuries. *Proceedings of the International Collaborative Effort on Injury Statistics*, 1:35-1 to 35-2, 1994.

Data Presentation. Within chapters 2 through 6, service data are presented in the following order: DoD (if applicable), Army, Navy, Marine Corps, and Air Force, followed by a section of tables that compares all of the services. Within each service section, data are presented as narrative, figures, and tables in the following order:

- Summary of data in chapter.
- Magnitude of the injury problem relative to other causes.
- Trends of the injury problem relative to other causes over time.

Summary tables displayed throughout each chapter combine data that are illustrated in two or more figures. Conclusions drawn from these figure comparisons are provided in the tables.

Database Populations. The population data presented in the atlas is defined as either military personnel or active duty personnel.

- Military personnel, as defined in DoD Instruction (DoDI) 6005.1, includes all military personnel on active duty, and Reserve or National Guard personnel on active duty or in drill status.
- Active duty personnel, as defined in DoDI 1300.18, is full-time duty in the active military services of the United States. It is a general term applied to all active military service with the active force without regard to duration or purpose.

Where possible, the work group collected data on active duty personnel only for two key reasons:

- The primary mission of the military is to sustain the health and combat readiness of U.S. fighting forces.
- The most complete and best quality medical, population, and demographic data exist for active duty personnel.

1-6. Standardization of Data Reporting

The atlas is designed to present similar data for each service in the same format so it can be easily compared.

- Tables display both frequencies and rates.
- Pie charts or bar graphs present frequency distributions (%).
- Line graphs, with supporting worksheet data tables, illustrate rates and trends over time.

Whenever possible, comparable data for the Army, Navy, Marine Corps, and Air Force are presented. However, data were often reported differently by the services or by agencies within services (e.g., non-effective rates (NERs) were reported per 1,000 personnel per day by the Army and per 100,000 personnel per day by the Air Force). In these cases, the data are presented as reported due to potential variations in how the data were tabulated by each agency.

Data Tabulation. Much of the data that were collected by the work group required additional tabulation to fit the desired format of the work group report (described in paragraph 1-5). The data were tabulated as follows:

- **Percent distributions.** The percent distribution was calculated for injuries versus other causes of morbidity and mortality by dividing the number of events in a specific category by the overall (total) number of events. For example, in 1993 there were a total of 1,245 deaths for all services combined. Of these, accidental injuries accounted for 54% (667 accidental injury deaths/1,245 total deaths); suicides accounted for 19% (240/1,245); illnesses accounted for 17% (215/1,245); homicides accounted for 7% (87/1,245); and all other causes accounted for 3% (36/1,245).
- **Rates.** Often, rates of adverse medical outcomes were calculated by the agency from which the data were requested. However, when rates were not supplied, they were calculated as cases in a year divided by the number of personnel in that year. Numerator data (cases of injuries, disease, or accidents/mishaps) were obtained from multiple sources such as casualty offices, disability agencies, and hospital record systems. Denominator data were acquired from one of two sources:
 - **Table 1-7** displays the active duty military personnel strength for FY 1980-1995 used to make the FY calculations.

Table 1-7. Active Duty Military Personnel Strength, FY 1980-1995*

Fiscal Year	Army	Navy	Marine Corps	Air Force	Total
1980	777,036	527,153	188,469	557,969	2,050,627
1981	781,419	540,219	190,620	570,302	2,082,560
1982	780,391	552,996	192,380	582,845	2,108,612
1983	779,643	557,573	194,089	592,044	2,123,349
1984	780,180	564,638	196,214	597,125	2,138,157
1985	780,787	570,705	198,025	601,515	2,151,032
1986	780,980	581,119	198,814	608,199	2,169,112
1987	780,815	586,842	199,525	607,035	2,174,217
1988	771,847	592,570	197,350	576,446	2,138,213
1989	769,741	592,652	196,956	570,880	2,130,229
1990	732,403	579,417	196,652	535,233	2,043,705
1991	710,233	570,262	194,040	510,432	1,984,967
1992	610,450	541,883	184,529	470,315	1,807,177
1993	572,423	509,950	178,379	444,351	1,705,103
1994	541,343	468,662	174,158	426,327	1,610,490
1995	508,559	434,617	174,639	400,409	1,518,224
Total	11,458,250	8,771,258	3,054,839	8,651,427	31,156,554

* Population denominator data for calculating rates for information tabulated by fiscal year.

Source: *DoD Worldwide U.S. Active Duty Military Personnel Casualties, Oct 79-Dec 95*. Prepared by DoD, Washington Headquarters Services, Directorate for Information Operations and Reports (DTIC# DIOR/M07-96/01).

- **Table 1-8** displays the active duty military personnel strength for CY 1980-1994 used to make the CY and gender specific rate calculations.

Table 1-8. Active Duty Military Personnel Strength, CY 1980-1994*

CY	Army			Navy			Marine Corps			Air Force		
	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
1980	697,943	69,705	767,648	490,063	35,999	526,062	180,439	6,750	187,189	494,521	61,087	555,608
1981	704,991	72,358	777,349	497,899	40,972	538,871	182,687	7,770	190,457	507,077	63,728	570,805
1982	699,719	74,462	774,181	511,997	44,390	556,387	188,532	8,630	197,162	518,679	65,039	583,718
1983	698,359	76,232	774,591	505,124	46,705	551,829	186,483	8,940	197,423	524,352	65,931	590,283
1984	699,209	77,136	776,345	507,988	47,845	555,833	188,348	9,359	197,707	527,231	66,896	594,127
1985	696,265	78,864	775,129	514,056	51,981	566,037	187,465	9,744	197,209	528,710	70,514	599,224
1986	697,215	82,814	780,029	525,406	53,405	578,811	188,247	9,832	198,079	533,349	74,236	607,585
1987	690,198	83,297	773,495	530,583	52,710	583,293	188,906	9,588	198,494	525,047	75,931	600,978
1988	676,806	83,969	760,775	523,075	54,455	577,530	185,426	9,624	195,050	498,991	75,006	573,997
1989	671,829	86,469	758,298	523,311	57,292	580,603	187,622	9,480	197,102	485,808	76,583	562,391
1990	651,778	83,789	735,567	517,070	56,970	574,040	188,619	9,305	197,924	453,482	73,341	526,823
1991	608,236	77,964	686,200	498,328	54,986	553,314	184,324	8,813	193,137	426,412	71,164	497,576
1992	523,335	72,456	595,791	470,102	54,745	524,847	174,765	8,271	183,036	387,934	66,988	454,922
1993	490,330	70,781	561,111	437,193	52,522	489,715	169,075	7,659	176,734	367,833	65,746	433,579
1994	460,433	69,009	529,442	400,659	52,367	453,026	172,643	8,176	180,819	347,726	64,797	412,523
Total	9,666,646	1,159,305	10,825,931	7,452,854	757,344	8,210,198	2,753,581	214,389	2,885,522	7,127,152	1,036,987	8,164,139

* Population denominator data for calculating rates for information tabulated by calendar year or gender.

Source: Obtained from DMDC by CDR James Helmkamp, U.S. Navy, for the *National Mortality Profile of Active Duty Personnel in the U.S. Armed Forces, 1980-1994*, a NIOSH Report (Pub 96-103).

1-7. Summary

The *Atlas of Injuries in the U.S. Armed Forces* is the result of 6 years of painstaking data collection and evaluation. This report illustrates, in over 150 figures and 100 tables, what has been believed for years: injuries are the leading health problem impacting U.S. military force readiness today. The extensive data provided in the atlas serves as the foundation for future briefings and reports addressing injury surveillance and prevention.

Appendix. DoD Injury Surveillance and Prevention Work Group Questionnaire

Work Sheet for Data Bases with Potential for Surveillance of Injuries to Active Duty and Civilian Military Personnel

Date: ____/____/____

Name of person completing work sheet: _____

Organization of person completing: _____

1. General information about data bases with surveillance capabilities or potential:

a. Name of data base: _____

b. Name of organization/agency managing data base: _____

If this organization/agency maintains more than one data base (e.g., one for active duty and one for civilian personnel), then fill out a separate form for each data base.

- c. What is the primary mission of the organization (e.g., Naval Medical Information Management System, Army Safety Center, Air Force Safety Agency, Naval Physical Evaluation Board, etc.) directly responsible for maintaining this data base? Please summarize that mission: _____

- d. What are the primary purposes for which the data in this data base are used (e.g. administrative tracking of cases, determining patient loads and distributions of diagnoses, medical/injury surveillance, etc.)?

Please list major purposes:

1. _____

2. _____

3. _____

4. _____

5. _____

2. For what military populations are data primarily maintained in this data base? Check each of the following that are applicable:

<u>Service</u>	<u>Active Duty</u>	<u>Military</u>		<u>Civilian</u>
		<u>Reserve</u>	<u>NG</u>	
Army	[]	[]	[]	[]
Navy	[]	[]	[]	[]
Marines	[]	[]	[]	[]
Air Force	[]	[]	[]	[]

Comments on types of personnel for whom deaths accidents or injuries are reported to this data base:

3. What DoD and Service Specific Directives and Regulations govern collection and maintenance of the data for this data base?

List:

Title

Number

_____	_____
_____	_____

4. What types of accidents and injuries are required to be reported to this organization/agency? Describe briefly:

5. What forms are used to document/collect accident, injury, or death data by this agency?

List:

Form Title

Form Number

_____	_____
_____	_____

Please, provide examples of key forms for inclusion in the DOD Injury Work Group report.

6. Who is required to complete/fill out accident, injury or death data forms?

List:

Form Title

Person/s Filling Out

_____	_____
_____	_____

7. Who transcribes and enters accident, injury or death data into the computerized data base? At what locations or organization/s? Describe:

8. What personal characteristics and demographic data are maintained in the computer data base on the individuals injured or dead? Please check a "Yes" or a "No" for each of the following:

	YES	NO	Comments/Descriptions
Name:	<input type="checkbox"/>	<input type="checkbox"/>	_____
SSN:	<input type="checkbox"/>	<input type="checkbox"/>	_____
Age:	<input type="checkbox"/>	<input type="checkbox"/>	_____
DOB:	<input type="checkbox"/>	<input type="checkbox"/>	_____
Gender:	<input type="checkbox"/>	<input type="checkbox"/>	_____
Race:	<input type="checkbox"/>	<input type="checkbox"/>	_____
Rank:	<input type="checkbox"/>	<input type="checkbox"/>	_____
MOS/:	<input type="checkbox"/>	<input type="checkbox"/>	_____
Occupation			
Other:			
_____	<input type="checkbox"/>	<input type="checkbox"/>	_____
_____	<input type="checkbox"/>	<input type="checkbox"/>	_____

Additional comments on personal characteristics and demographic data maintained on individuals recorded in this data base:

9. What key information is maintained in the computer data base on the medical nature or diagnosis of the injury, disability or death and medical care received for it? Please check a "Yes" or a "No" for each of the following:

	YES	NO	Comments/Descriptions
Diagnosis/Type of Injury	<input type="checkbox"/>	<input type="checkbox"/>	_____
Type of Treatment	<input type="checkbox"/>	<input type="checkbox"/>	_____
Dates Treatment Received	<input type="checkbox"/>	<input type="checkbox"/>	_____
Date Admitted to Hosp	<input type="checkbox"/>	<input type="checkbox"/>	_____
Date Discharged Hosp	<input type="checkbox"/>	<input type="checkbox"/>	_____
Nature of Disability	<input type="checkbox"/>	<input type="checkbox"/>	_____
Degree of Disability	<input type="checkbox"/>	<input type="checkbox"/>	_____
Severity of Injury	<input type="checkbox"/>	<input type="checkbox"/>	_____
Days of Limited Duty	<input type="checkbox"/>	<input type="checkbox"/>	_____
Days in Hospital	<input type="checkbox"/>	<input type="checkbox"/>	_____
Costs of Treatment	<input type="checkbox"/>	<input type="checkbox"/>	_____

Other:

_____ [] _____ []
 _____ [] _____ []

Where appropriate, for each of the above checked "yes," comment on the coding system used to enter it in the data base. If the coding system is not a widely used one, such as the International Classification of Disease (ICD-9), Veteran's Administration Schedule of Ratings of Disabilities (VASRD Codes) or the Abbreviate Severity of Injury Scale (ASIS), please provide/attach a list of the coding categories and subcategories on a separate sheet or Xerox.

Additional comments on coding of medical nature of injuries: _____

10. What key information is maintained in the computer data base on the type or category of accident or external cause of injury? Please check a "Yes" or a "No" for each of the following:

	YES	NO	Comments/Descriptions
Type/Cause of Accident/Injury	[]	[]	_____
Date of Accident/Event	[]	[]	_____
Time of Accident/Event	[]	[]	_____
On/Off Duty/Work	[]	[]	_____
Job/Activity Associated	[]	[]	_____
Equipment Involved	[]	[]	_____
Cost of Accident/Injury	[]	[]	_____
Other:			
_____	[]	[]	_____
_____	[]	[]	_____

Where appropriate, for the above items checked "yes," comment on/note the coding system used categorized the types accidents or external causes of injury. If the coding system is not a standard, commonly used one, such as the ICD-9 external cause codes (E-Codes) or the Standard NATO Codes (STANAG Codes) used by military hospital please provide/attach a list of code categories and subcategories on a separate labeled sheet of paper or Xerox copy.

- If “Yes,” frequencies or rates are routinely reported, what is the name of the report and what is the periodicity of the report (i.e., quarterly, annually, etc.)?

12. Is/are there a document or documents that describe/s this data base and its contents, elements or fields?
☐ YES, ☐ NO

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